



Patients Need Access to Whole Plant Medical Cannabis

Of the 32 states that have effective medical marijuana laws, only two restrict patients to pills, oils, and other products derived from cannabis, but do not permit the actual plant itself. (In a third, the issue is being litigated.)¹ This limitation drives up prices and deprives patients of the medicine that works best for them.

Research has shown whole plant marijuana to be an effective treatment.

Dozens of studies demonstrate the medical benefits of whole plant, flower cannabis in its natural form. In contrast, oils and liquids available under more limited programs have not been tested. There is no good reason to deny an incredibly sick individual access to a product that has been studied and proven to alleviate a variety of medical conditions.

Whole plant marijuana has an “entourage effect.”

As reported by CNN’s Dr. Sanjay Gupta, marijuana contains more than 480 natural components, including cannabinoids and terpenes. “[A]ll these components of the cannabis plant likely exert some therapeutic effect, more than any single compound alone. ... Unlike other drugs that may work well as single compounds, synthesized in a lab, cannabis may offer its most profound benefit as a whole plant, if we let the entourage effect flower.”²

While some of these components have been isolated, like CBD and THC, many others have not. Israeli researcher Raphael Mechoulam and his colleagues believe using whole plant marijuana allows all of the components found in marijuana to work together, resulting in a greater therapeutic effect than any single compound accomplishes on its own. Most liquid cannabis does not contain the terpenes found in raw, whole plant marijuana, which could weaken the potential therapeutic effect. In addition, many patients find eating raw, whole plant marijuana is an effective way to derive the therapeutic benefits of the plant without the high associated with smoking or vaporizing it.

Whole plant marijuana allows patients to better titrate their dosages.

Allowing patients to vaporize whole plant, flower marijuana gives them the ability to better control their dose. A patient can use a small amount and wait mere moments to determine if he or she needs more. This is because once inhaled, cannabinoids rapidly pass from the lungs to the blood stream. By contrast, the liver must first metabolize pills over a period of up to several hours before the patient feels the effects, leaving an already vulnerable individual guessing at how much to ingest. While oils can be vaporized, there is no need to force patients to use extracts that have different concentrations of cannabinoids. They simply do not work for some patients.

Whole plant, flower cannabis is typically the most affordable option for patients.

Seriously ill patients frequently face tremendous medical costs, but often have no income or rely on government disability benefits. Government-issued and private medical insurance will not cover the cost of medical cannabis, forcing patients to pay the full price for their treatment. Whole plant cannabis is significantly less expensive than products that have been processed, and access to whole plant cannabis would ease the financial burden on patients.

¹ Those states are Minnesota and West Virginia. In the third state, Florida, after voters approved a constitutional amendment to allow medical cannabis, the legislature sought to prohibit whole plant marijuana and cannabis smoking. A patient sued and was successful at the trial court level, but the decision is being appealed.

² <http://www.cnn.com/2014/03/11/health/gupta-marijuana-entourage/index.html>

In the first years of the state's program, New York's medical cannabis patients — who were only allowed to access extracts — faced exorbitant prices. In December 2017, following widespread outcry, the New York Department of Health approved ground whole plant cannabis. In Pennsylvania, regulators removed a ban on whole plant almost immediately after medical cannabis sales began. In early 2018, an advisory body recommended allowing whole plant. The health department swiftly implemented the recommendation, ending that state's prohibition on flower cannabis. As of October 2018, only Minnesota and Florida (where the ban is being litigated) have operational programs that prohibit whole plant, flower cannabis (sales have not begun in West Virginia). In Minnesota, many families are paying hundreds of dollars each month.³ In Florida, the high costs have put medical cannabis out of reach of many.⁴

Both New York and Pennsylvania's programs initially prohibited whole plant cannabis. In December 2017, following widespread outcry about high prices and other problems, the New York Department of Health approved allowing ground whole plant. Almost immediately after medical cannabis sales began in Pennsylvania, an advisory body recommended allowing whole plant. The health department swiftly implemented the recommendation, ending that state's prohibition on flower cannabis.

As medical cannabis expert Sunil Kumar Aggarwal, MD, Ph.D., explains, whole plant is more effective than processed medical cannabis:

Extracts often leave out therapeutically important terpenoids that are needed for the full medical cannabis "entourage" effect produced by whole plant botanical material. They may also be too potent for some patients to tolerate, compared to the whole plant botanical material (due to a concentration effect and because the terpenoids that strongly modulate the effects of the cannabinoids may be reduced or absent from the extract), and may not be effective for all or allow for careful dose titration.

If only extracts and other processed products are available, there will be a strong incentive for companies to produce only a limited number of strains of cannabis. It is highly unlikely that they would make available the scores of strains needed for different cannabis-responsive diseases because they would have to process each of those strains, which would cut into profits. This would make it impossible for patients to gain legal access to the types of strains that they need, be it one of scores of subtypes of varieties found to be effective.

It is axiomatic that whenever companies process a product, they have to charge more for the processed product than for the unprocessed product. Therefore, this requirement would be horrendous (and unfair) for patients with terminal or debilitating diseases who are of limited means (due to being "working poor," the disease leaving them unable to work, or medical bankruptcy from the costs of their or their child's illness). These people will not be able to afford

³ "Early Results of Office of Medical Cannabis Surveys," Minnesota Health Department, May 2016. (Most patients reported medical cannabis is not affordable, with 35% saying the cost was "very prohibitive" — a 7 out of 7 for its lack of affordability. One parent wrote, "Our son has life threatening seizures and we are spending close to \$1000 per month not including travel costs and caregiver expenses." ("Assessing New York's Medical Marijuana Program: Problems of Patient Access and Affordability," Drug Policy Alliance. (77% of patients and caregivers who bought cannabis from a dispensary said they couldn't afford the monthly costs; 79% reported monthly costs of \$300 or more.)

⁴ Colleen Jones, "Medical marijuana is legal in Florida, but its high cost puts it out of reach for many," *St. Augustine Record*, August 31, 2018.

either the processed product or the devices for using it and will be forced either to go to the black market and risk being arrested or to suffer needlessly.

Robin Schneider, medical marijuana patient and executive director of the National Patients Rights Association, explains:

Allowing medical marijuana patients to access and use whole plant marijuana, in addition to pills and oils derived from the plant, is a key component to workable medical marijuana laws. Raw marijuana flowers do not need to be produced into oils or liquids in order to be therapeutic. In fact, consuming raw or juiced fresh marijuana flowers is an incredibly effective way for patients to introduce THCA, a precursor to THC that has anti-inflammatory and neuroprotective effects, into their bodies. THCA degrades and loses its benefits if it is frozen or stored too long, so oils and liquids can be far less effective at delivering this important cannabinoid. For patients who need immediate relief, vaporizing whole plant marijuana allows them to more easily control their dosage than vaporizing oils derived from marijuana doses. This allows patients to consume enough medical marijuana to relieve their symptoms without becoming intoxicated.